### United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| _ |   |                   |                      |                     |                  |
|---|---|-------------------|----------------------|---------------------|------------------|
|   | APPLICATION NO.                             | FILING DATE       | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|   | 14/174,027                                  | 02/06/2014        | Randy Gene Ogg       | 70208.0043USU1      | 7216             |
|   | 23552<br>MERCHANT &                         | 7590 06/29/202    | 0                    | EXAMINER            |                  |
|   | P.O. BOX 2903<br>MINNEAPOLIS, MN 55402-0903 |                   | RUDDOCK, ULA CORINNA |                     |                  |
|   | MINNEAPOLI                                  | 5, MIN 55402-0905 |                      | ART UNIT            | PAPER NUMBER     |
|   |   |                   |                      | 1729                |                  |
|   |   |                   |                      | NOTIFICATION DATE   | DELIVERY MODE    |
|   |   |                   |                      | 06/29/2020          | ELECTRONIC       |

### Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO23552@merchantgould.com

#### UNITED STATES PATENT AND TRADEMARK OFFICE

#### BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RANDY GENE OGG, PHIL BENNETT, ALAN SEIDEL, and PAUL GIFFORD

Application 14/174,027 Technology Center 1700

Before ROMULO H. DELMENDO, BEVERLY A. FRANKLIN, and JULIA HEANEY, *Administrative Patent Judges*.

FRANKLIN, Administrative Patent Judge.

#### **DECISION ON APPEAL**

#### STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–16. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

<sup>&</sup>lt;sup>1</sup> We use the word Appellant to refer to "applicant" as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Encell Technology, Inc. Appeal Br. 1.

#### **CLAIMED SUBJECT MATTER**

Claim 1 is illustrative of Appellant's subject matter on appeal and is set forth below:

1. A battery comprising an iron anode, a nickel cathode, and an electrolyte comprised of sodium hydroxide, lithium hydroxide and a soluble metal sulfide, wherein the amount of sulfide contained in the electrolyte ranges from 0.23% to 0.75% by weight of the electrolyte, and with the iron anode comprising a polyvinyl alcohol binder.

**REFERENCES** 

The prior art relied upon by the Examiner is:

| Name         | Reference          | Date          |
|--------------|--------------------|---------------|
| Kuczkowski   | US 1,417,391       | May 23, 1922  |
| Moulton      | US 2,871,281       | Jan. 27, 1959 |
| Kononenko    | US 4,123,568       | Oct. 31, 1978 |
| Kobayashi    | US 6,558,848 B1    | May 6, 2003   |
| Phillips     | US 7,816,030 B2    | Oct. 19, 2010 |
| Duong        | US 2011/0123850 A1 | May 26, 2011  |
| D. D 4 -1 El | T (1 1 1 1 ·       |               |

P. Periasamy et al., Electrochemical behaviour of Teflon-bonded iron oxide electrodes in alkaline solutions, 63 J. Power Sources 79–85 (1966)

#### **REJECTIONS**

- 1. Claims 1–10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Moulton in view of Phillips, Periasamy, and Kononenko.
- 2. Claims 11–14 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Moulton, in view of Phillips, Periasamy, Kononenko, and Duong.
- 3. Claims 11–16 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Moulton, in view of Phillips, Periasamy, Kononenko, and Kobayashi.

4. Claims 1–5 and 11–16 and rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1–4, 7, 8, and 13–19 of US Patent Application 14/173,991.

#### **OPINION**

Upon consideration of the evidence and each of the respective positions set forth by each party, we find that the preponderance of evidence supports Appellant's position for Rejections 1–3 (but not for Rejection 4). We thus reverse the Examiner's decision to reject the appealed claims for the reasons provided by Appellant for Rejections 1–3 in the Appeal Brief and in the Reply Brief, and add the following for emphasis.

### Rejections 1–3

As argued by Appellant, the Examiner misinterprets certain teachings of Moulton. Appeal Br. 2–3. The Examiner's position is that Moulton suggests the claimed amount of sulfide (the amount of sulfide contained in the electrolyte ranges being from 0.23% to 0.75% by weight of the electrolyte) based on certain calculations made by the Examiner. Ans. 3–6. However, we agree with Appellant that the solution having the amount of sulfide as calculated by the Examiner is not the electrolyte used in the battery (this is the misinterpretation made by the Examiner).

As Appellant explains, Moulton describes preparing an iron anode containing sulfur. The solution used contains 2.5 wt % sulfur. Moulton, col. 2, l. 65–col. 3, l. 2. Appellant explains that it is from this solution (hereinafter referred to as the "remaining solution") that the sulfur migrates into the iron anode. Appellant explains that this remaining solution is not the electrolyte used in the battery as the Examiner believes it to be. Appeal

Br. 2–3. Appellant explains that this remaining solution is in fact drained (see col. 3, l. 11 of Moulton). *Id.* Then, a "new" solution for use as the electrolyte in the battery is added. Moulton, col.3, ll. 11–14. Or, alternatively, "the same electrolyte is modified to have the desired sulphide electrolyte mixed therewith" is added to be used as the electrolyte of the battery. *Id.* We agree with this understanding of Moulton. The pertinent disclosure of Moulton in this regard is reproduced below:

The electrolyte is then drained from the cell and a new or the same electrolyte is modified to have the same desired sulphide electrolyte mixed therewith and is then added to the cell. Thereafter, the cell is put immediately on charge and cycled several times according to the usual practice.

Moulton, col. 3, ll. 10–14.

In either scenario (new or the same-but-modified electrolyte solution), the electrolyte solution is not the same as the "remaining solution" discussed, *supra*. Hence, the calculations presented by the Examiner concern a remaining solution which is not used as the electrolyte for the battery.<sup>2</sup> The Examiner's response made on pages 16–17 of the Answer is not supported by the preponderance of the evidence.

Hence, we agree with Appellant that the claimed amount of sulfide in the battery electrolyte ("from 0.23% to 0.75% by weight of the electrolyte") is not suggested by Moulton. The Examiner does not rely upon the other applied references of record to remedy this deficiency of Moulton. We

<sup>&</sup>lt;sup>2</sup> Although not dispostive in making our determinations herein, it is noteworthy that the amount of sulfur that migrates into the iron anode is somewhat a speculative variable that undermines the exactness of the Examiner's calculations.

therefore reverse Rejections 1–3. We need not reach Appellant's rebuttal evidence (Ogg Declaration and Example 2 of the Specification) in making this determination.

### Rejection 4

This nonstatutory double patenting rejection is summarily affirmed because it is not argued on the merits. *See Hyatt v. Dudas*, 551 F.3d 1307, 1314 (Fed. Cir. 2008) (explaining that summary affirmance without consideration of the substantive merits is appropriate where an appellant fails to contest a ground of rejection). Appellant indicates that a terminal disclaimer will be filed at the appropriate time. Appeal Br. 12–13.

#### **CONCLUSION**

We reverse Rejections 1–3, but summarily affirm Rejection 4.

### **DECISION SUMMARY**

## In summary:

| Claims     | 35 U.S.C. | Reference(s)/Basis   | Reversed | Affirmed   |
|------------|-----------|----------------------|----------|------------|
| Rejected   | §         |                      |          |            |
| 1–10       | 103       | Moulton              | 1–10     |            |
|            |           | Phillips, Periasamy, |          |            |
|            |           | Kononenko            |          |            |
| 11–14      | 103       | Moulton, Phillips,   | 11–14    |            |
|            |           | Periasamy,           |          |            |
|            |           | Kononenko, Duong     |          |            |
| 11–16      | 103       | Moulton, Phillips,   | 11–16    |            |
|            |           | Periasamy,           |          |            |
|            |           | Kononenko,           |          |            |
|            |           | Kobayashi            |          |            |
| 1–5, 11–16 |           | Nonstatutory         |          | 1–5, 11–16 |
|            |           | Double Patenting     |          |            |
| Overall    |           |                      | 6–10     |            |
| Outcome    |           |                      |          |            |

### TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

# AFFIRMED-IN-PART